

REMARKS

Claims 1-20 are pending in this application. By this Amendment, claims 1, 13 and 16 are amended. No new matter is added. Reconsideration based on the amendments and following remarks is respectfully requested.

I. Rejoinder of Withdrawn Claims

Applicants respectfully request rejoinder of claims 13-15 pursuant to MPEP § 821.04(b) as method claims 13-15 require all limitations of the allowable product claims.

II. §112 Rejections

The Office Action rejects claims 1-12 and 18 under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. Specifically, the Office Action asserts that the application does not convey that Applicants had possession of the claimed subject matter because paragraph 24 of Applicants' specification indicates the slit may have a ratio of 1:1 or 1:1.25.

However, Applicants respectfully submit that the Office Action sets forth an analysis that is based on an improper application of the written description standard. Specifically, the specification may provide for broader subject matter than what is recited in the claims. The specification need only support the claims, while the claims stake out the meet and bounds of Applicants' invention. While narrower ratios are expressly stated in the specification, Applicants' recitation of a ratio of 1:2 is well supported in the specification. A basis in the specification for the claimed features is all that is required by §112, first paragraph. Indeed, claimed ranges need not correspond exactly to disclosed ranges. *Ralston Purina co. V. Far-Mar-Co., Inc.*, 222 USPQ 863 (D. Kan. 1987), aff'd. in part and rev'd. in part, 227 USPQ 177 (Fed. Cir. 1985).

Nonetheless, Applicants hereby amend claims 1, 13 and 16 to more clearly recite the claimed ratio. There is no reason for Applicants to recite in the claims the entire range of

ratios supported in the specification, nor is there a reason for Applicants to be restrained by "preferred" lower and upper limits. Withdrawal of the rejection is respectfully requested.

III. The Claims Define Allowable Subject Matter

The Office Action rejects claims 1, 2, 8, 10-12 and 18 under 35 U.S.C. §103(a) as being unpatentable over Higushi et al. (U.S. Patent No. 4,364,760) in view of Fujita (JP 59-199586) and Fleck (WO 93/21429). The Office Action rejects claims 3-7 under 35 U.S.C. §103(a) as being unpatentable over Higushi et al. in view of Fujita and Fleck, and further in view of Hidaka et al. (EP 1,128,031). The Office Action rejects claim 9 under 35 U.S.C. §103(a) as being unpatentable over Higushi et al. in view of Fujita and Fleck, and further in view of Rao et al. (U.S. Patent No. 5,758,496). The Office Action rejects claims 16, 17, 19 and 20 under 35 U.S.C. §103(a) as unpatentable over Kuwamoto et al. (U.S. Patent No. 5,853,459) in view of Tomita et al. (U.S. Patent No. 4,464,185). The rejections are respectfully traversed.

The Office Action asserts that Fujita and Fleck teach features that allegedly correspond to the slits recited in claim 1. Specifically, the Office Action asserts that Fujita teaches at Figure 4 a slit passing through an entire length of a partition wall. Fleck discloses in Figure 1 interruptions in walls of through channels in honeycomb structure. The Office Action concludes that the lengthwise slit in Fujita, and interruption in through channel walls in Fleck can reasonably be considered to correspond to a feature wherein at least one slit per through channel is formed in the vicinity of the plugging portion of the partition walls surrounding the respective through channels, each slit having a width to length ratio of at least 1:2. The Office Action concludes that one of ordinary skill in the art would have been motivated to combine Fujita, Fleck and Higushi to provide a slit in respective through channels in the apparatus of Higushi because "the slits would improve the thermal shock resistance of a honeycomb structure."

With respect to Fleck, Applicants respectfully submit that it is unreasonable to assert that interruptions in walls between cells can be considered to correspond to slits in those very walls. Indeed, it is more likely to be considered to be a multiplicity of walls, rather than walls with slits.

With respect to the combination of Higushi and Fujita, Applicants respectfully submit that the Office Action does not provide adequate basis as to why one of ordinary skill in the art would have been motivated to combine these references in the manner suggested. Higushi, which merely teaches alternative formation of plugging portions in the checkered portions of both ends, fails to suggest any difficulty with thermal shock resistance of the honeycomb structure. Thus, it is unreasonable to assert that one of ordinary skill in the art would have been motivated to solve shock resistance by combination of the cited references, particularly in light of the fact that Higushi discloses selecting materials with specific coefficients of thermal expansion, thereby adequately addressing any issue regarding thermal shock resistance of the honeycomb structure, rendering needless any discussion of or reference to that point.

Indeed, such combination is at odds with the analysis for combining references as to rejections of claims 3-7 one of ordinary skill in the art would not have further modified full length-wise slits in, for example, Fujita, even if it were combinable with Higushi to include the recited specific dimensions. The Office Action's assertions regarding optimal workable ranges ignores the very motivation by which the Examiner alleges Higushi might have been modified by, for example, Fujita. The attempted combination of references and the arguments in combination with further rendered obvious the subject matter of, for example, claims 3 and 4 regarding specific dimensions ignores the Examiner's asserted reasons for making the combination with Higushi and Fujita in the first place. Reducing the length-wise

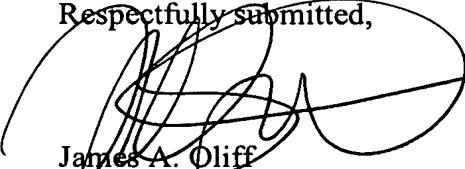
slits of Fujita to be within the specifically defined ranges recited in, for example, claims 3 and 4 defeat any alleged thermal shock resistance of a resulting honeycomb structure.

Not only is there no motivation to combine, Fujita fails to teach slits as presently recited. Specifically, Fujita allegedly includes slits; this conclusion being based on spooling tests under the assumption that the formation that the hair-cracks in the partition walls could improve the thermal shock resistance. Thus, the width of the slits in Fujita is equal to the hair-cracks formed due to thermal shock, the length is 10 μ m or more, as can be taken from the description on page 490. Indeed, this document is silent as to the position of the slits formed, whereas claim 1 recites the formation of the slits on or at a vicinity of the plugging portions of the structure. Thus, the slits formed in Fujita could not provide one of the many features afforded by Applicants' presently claimed combination of features, i.e., a device for removing ashes formed by firing during regeneration of a filter. With regard to the rejection in the Office Action of claims 16, 17, 19 and 20, Applicants respectfully submit that the claims as amended obviate the rejection.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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Attachment:

Request for Continued Examination

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